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# CHEMICAL PLANTS LUDWIGSHAVEN

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Date 1945

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COMBINED INTELLIGENCE OBJECTIVES  
SUB-COMMITTEE





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REPORT ON VISIT TO CHEMICAL PLANTS  
LUDWIGSHAVEN, GERMANY

25 March 1945

Reported by

R. C. ELEY  
Commander (MC) USNR

CIOS Black List Item 24  
Medicine

COMBINED INTELLIGENCE OBJECTIVES  
SUB-COMMITTEE  
G-2 DIVISION, SHAEF (rear) APO 413



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PERSONNEL OF INSPECTION TEAM

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Team Leader  
Commander R. C. ELEY (MC) USNR  
Deputy Team Leader  
Major C. F. ENLOE (MC) USTBAF  
Major F. P. CHINARD (MC) USSTAF  
Major F. E. DAVIS (MC), Office of Chief Surgeon ETOUSA  
Captain W. J. CROMARTIE (MC) AUS, ALSOS Mission  
Dr. Wallace BRODE, O.S.R.D.

UNITED STATES FLEET  
UNITED STATES NAVAL FORCES IN EUROPE  
20 GROSVENOR SQUARE, LONDON W.1

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9 April 1945

SUBJECT: REPORT ON VISIT OF MEDICAL INVESTIGATING TEAM TO  
TARGETS 24/17c AND 24/55, LUDWIGSHAVEN, GERMANY.

I. I. G. FARBEINDUSTRIE, A. G. OPPAU WORKS, LUDWIGSHAVEN

1. This plant, which under normal conditions is one of the largest producers of bulk chemicals in the world, occupies several thousand acres and employs 12,000 workers. However, as a result of aerial bombardment approximately 75% of the buildings and equipment have been demolished, and such damage has been inflicted on the remainder that further production seems impossible.
2. Only a small section of the plant was engaged in experimental medical research. This area was practically non-existent after repeated bombing. One laboratory was completely destroyed and the other building which housed the biological and medical laboratory was 90% destroyed. Equipment which had been saved from fire and bombing had been crated and labelled for shipment to Biological Laboratories, Oppau, Onstmettingen/Wttbg., by Ebinger Firma Gottl. Kern U.Z. Several files were found intact and were placed with the Documents Division for further examination. These related to: (1) Health conditions of employees during bombing attacks; (2) Correspondence with scientific personnel located in other German cities; (3) Results obtained after clinical trials of preparations. No drugs, chemicals or other agents were present.
3. The greenhouse area, where extensive studies on fertilizers were being made, was completely demolished.
4. Across the road from the greenhouses, and directly adjacent to Oppau, are apparently the chemical research laboratories for Oppau. The buildings were from 30 to 60% demolished by air bombing. Some equipment was boxed, marked as "war material" and labelled for shipment to Dr. Fuft at Heidelberg. Extensive records, photostats, pressure reactions, calorimeters and semi-plant scale equipment were noted.



5. Located in the basement and first floor of one building was a small hospital for plant personnel of the I. G. Farbenindustrie. Examination of surgical and medical equipment, drugs and records afforded no information of value. It is of interest to note that complete equipment and supplies for the treatment of gas-contaminated casualties were on hand. A modern and completely equipped dental office occupied one section of the hospital. It was stated that during the war and through air raids only 360 people had been killed and 4 wounded at this plant.

## II. KNOLL A. G. CHEMICAL INDUSTRIES, LUDWIGSHAVEN

6. This plant is much smaller than the I. G. Farbenindustrie and normally employed about 800 people. Approximately 75% of the physical plant is completely destroyed. The plant specialized in the manufacture of drugs from intermediary products obtained from Berlin and Kaiserlautern. Its chief product was "Cardiozol", a circulatory and cardiac stimulant, from which the company seems to have made quite a reputation. Other products are: Tannalbin, a tannic-acid albumin preparation used in the treatment of dysentery; Granugenal, a mineral-oil mixture to speed granulation in open wounds; ephedrine; actinum D; Klimalcton; codeine; morphine; papaverine compounds and barbiturates.

7. All the buildings of this company have received extensive bomb damage. However, a small section in the sub-basement of the administrative building had been equipped to package tablets and ampoules, but this had been recently damaged and was not operational. Large stores of narcotics and other products, as listed below, which were found stored in this basement were placed under guard, and it was strongly recommended to "T" Force that these drugs be removed immediately to a place of safety.

8. Morphine hydrochloride	8 kilograms
Codeine nitrate	6 "
Codeine	15 "
Cocaine	3 "
Papaverine compounds	8 "
Dilandil	10 "
Cardiozol	500 "
Quinine	Amount not given



9. A complete inventory of all drugs on hand was obtained from the director and delivered to the Documents Division. Similar disposition was made of certain business correspondence and documents obtained from safes.

10. Safes at the Knoll Company which could not be opened by plant personnel present were opened by the Engineering Demolition Squad. Material examined showed that a Dr. Wolf was in charge of research work for the company and had his office located at the University of Heidelberg. Pilot plants were supposed to be in operation at Kaiserlautern, Ebingen and Eppingen. The plant near Kaiserlautern was visited by one of the team members, who found that the only product produced there was bromural, one of the barbiturates.

11. Further information from documents indicated that Dr. W. Franke of Wurtzburg was performing experimental work on a penicillin-like drug. No definite information on this could be obtained. Dr. Kurt Schmidt and his assistant, Dr. Strygowske at the University of Heidelberg, was reported to be carrying on work on the synthesis of quinine. These men are not employed by Knoll, but all of their research work can be bought up by the Company.

12. Interrogation of the Director, Dr. Walter Sauerbach, and Dr. Mothes, chemist in charge of production, disclosed that no research had been made on anti-malarials or anti-luetic agents. However, a small quantity of "Lansito" was made. This powder is very similar to DDT and is already known to British and American manufacturers. The plant was strictly a pharmaceutical one and little if any time was devoted to medical research.

13. Director Sauerbach, a Nazi, ex-Korvetten Kapitän, and primarily a business man, was thought to be unreliable; Dr. Mothes, chemist in charge of production, knew little about the research work or medical aspect. He was fairly helpful and cooperative. Other personnel, accountants, workmen etc. were interrogated, but gave very little information of value.



### III. KURT-RASCHIG CO., LUDWIGSHAVEN

14. This large plant had not been too badly damaged as it was only about 30% destroyed. At the time of the investigation the power plant was functioning, electric lights and complete independent telephone system were in working order, and approximately 350 employees were at work (normally the company employed some 1200 workers). It is quite likely that the plant could be put into full production within a short period of time.

15. Reputedly this firm produced a good quantity of medical agents, but on investigation it was found to be primarily concerned in the manufacture of plastics, phenols, creosols and antiseptics. The chief antiseptic produced was marfanil prontosil, a bacteriostatic agent already well known. A small amount of sulfapyridine was manufactured also.

16. Large stocks of raw materials, including benzine, alcohol and phenol were on hand.

17. Documents relative to plant production and certain files of correspondence concerning personnel were transferred to the Documents Division for further study.

18. Dr. Kurt Raschig, General Director, was an allied prisoner. Dr. Claus Raschig, a brother and Director of Research, was reported to have escaped to Mannheim, which at that time was held by the Germans. Dr. Kuhn, plant manager, had not left Ludwigshaven.

### IV. GENERAL

19. The German people in the Ludwigshaven area appeared well nourished and healthy. Children and babies on the streets presented no gross or apparent evidence of deficiency diseases. Food supplies and clothing seen in the houses were more than ample and usually consisted of large stocks. Obviously they had lived exceptionally well.

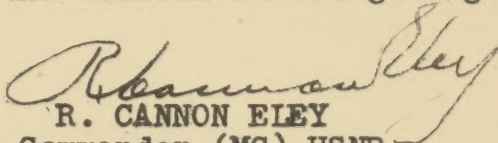
20. It was difficult to obtain a full account of the incidence of communicable or contagious diseases. Interrogation by one of the team members of Dr. Wenster of the Health Service, I. G. Farben, disclosed that only 12 cases of typhus



had been reported in Ludwigshaven. Of late a few cases of typhoid fever had developed and this was thought to be due to contamination of water supplies from broken sewer mains. It was further stated that the population of the towns in the vicinity had been boiling all drinking water for the past four years.

21. Arrangements were made with Major C. F. Enloe (MC) USTBAF to interrogate research workers at the University of Heidelberg. Any information received from this interrogation will be made available at the earliest practicable date.

Submitted for the Medical Investigating Team by



R. CANNON ELEY  
Commander (MC) USNR  
Deputy Team Leader.











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